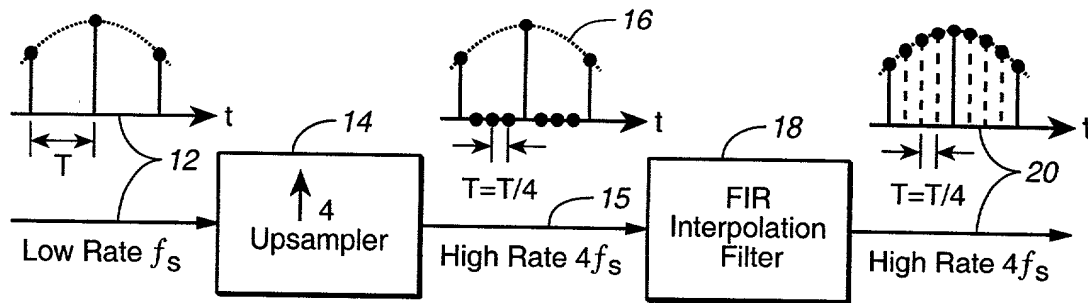
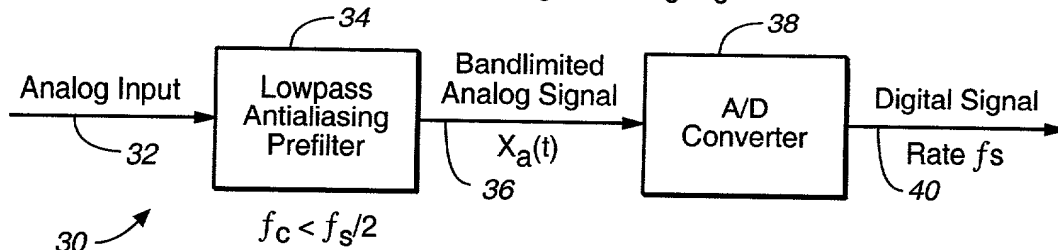
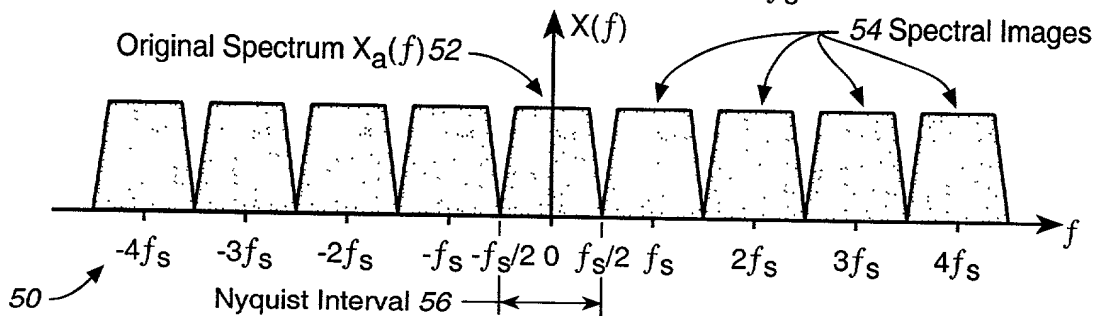


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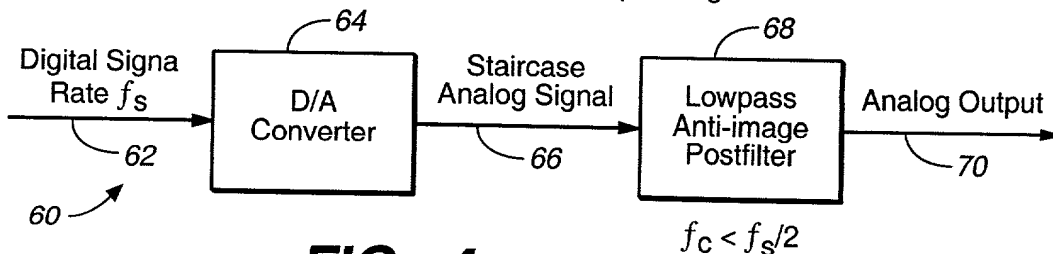
Sampling Rate Increase with Digital Interpolation

**FIG._1 (PRIOR ART)**

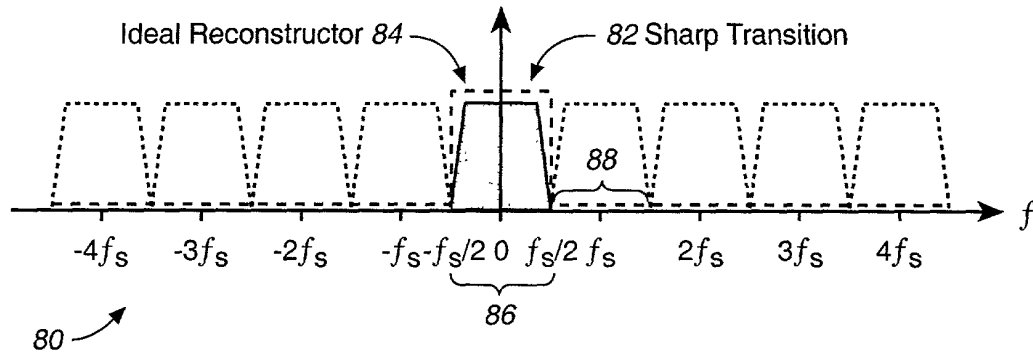
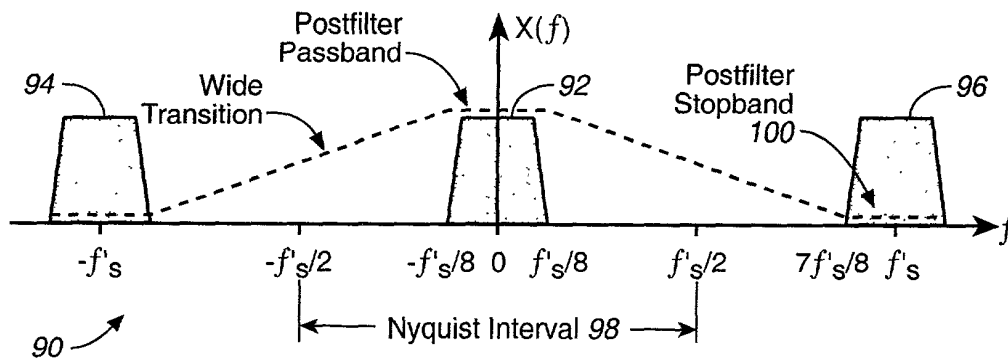
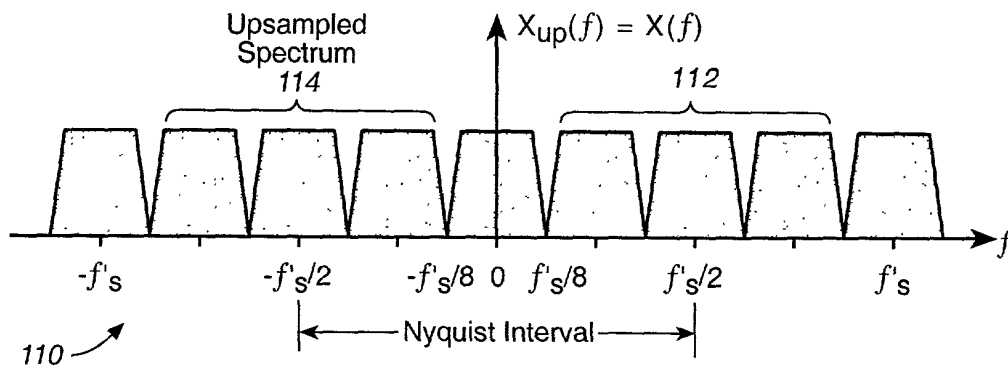
Prefiltering and Sampling of Analog Signal

**FIG._2 (PRIOR ART)**Spectrum of Signal Sampled at Low Rate f_s **FIG._3 (PRIOR ART)**

Analog Reconstruction of Sampled Signal

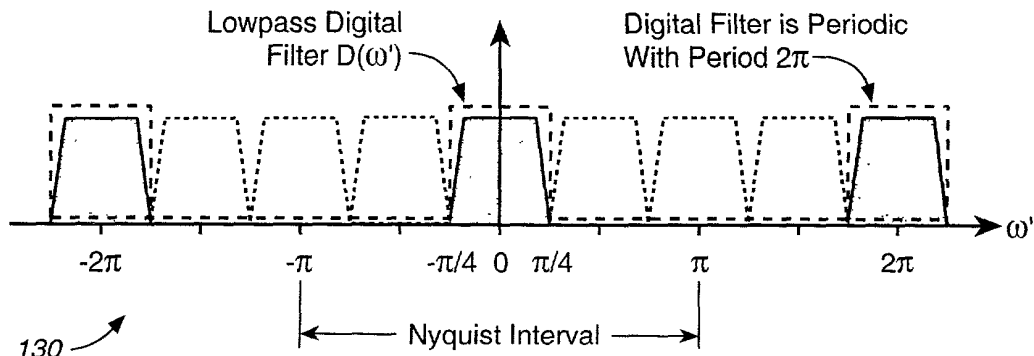
**FIG._4 (PRIOR ART)**

Ideal Reconstructor Removes Spectral Images Due to Sampling

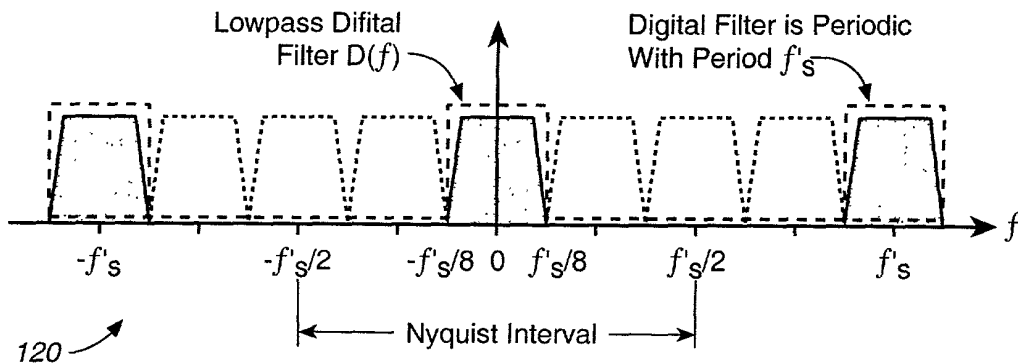
**FIG. 5 (PRIOR ART)**Spectrum of Signal Resampled at High Rate $4f_s$, and Postfilter Requirements**FIG. 6 (PRIOR ART)**Spectrum of Low-Rate Samples with Respect to High Rate $4f_s$ **FIG. 7 (PRIOR ART)**

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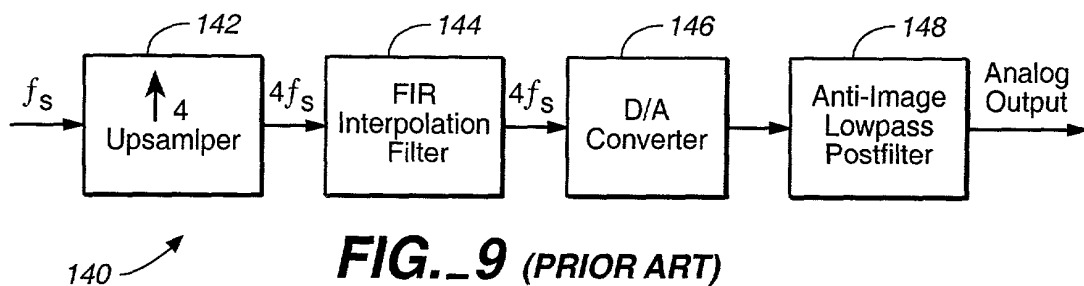
High-Rate FIR Interpolator Removes Intermediate Spectral Images

**FIG._8A (PRIOR ART)**

High-Rate FIR Interpolator Removes Intermediate Spectral Images

**FIG._8B (PRIOR ART)**

4-Times Oversampling Digital Filter Helps Analog Reconstruction

**FIG._9 (PRIOR ART)**

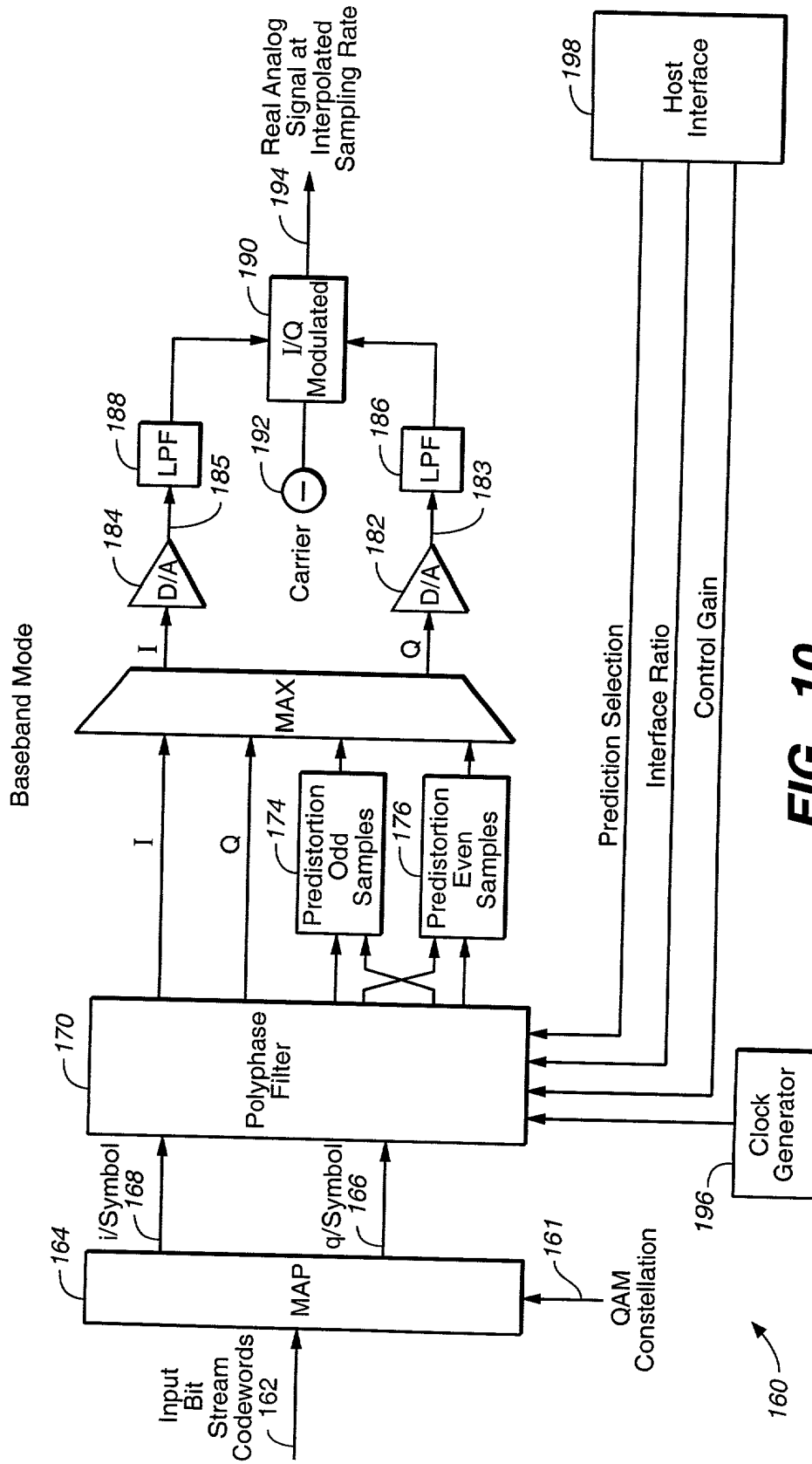
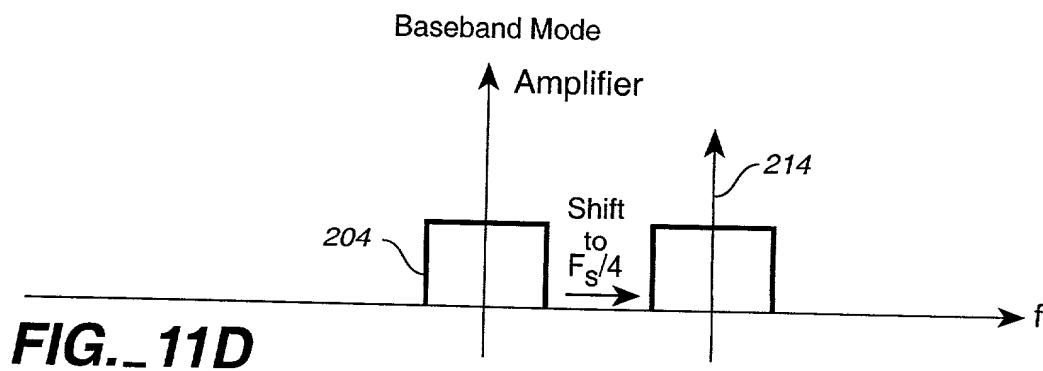
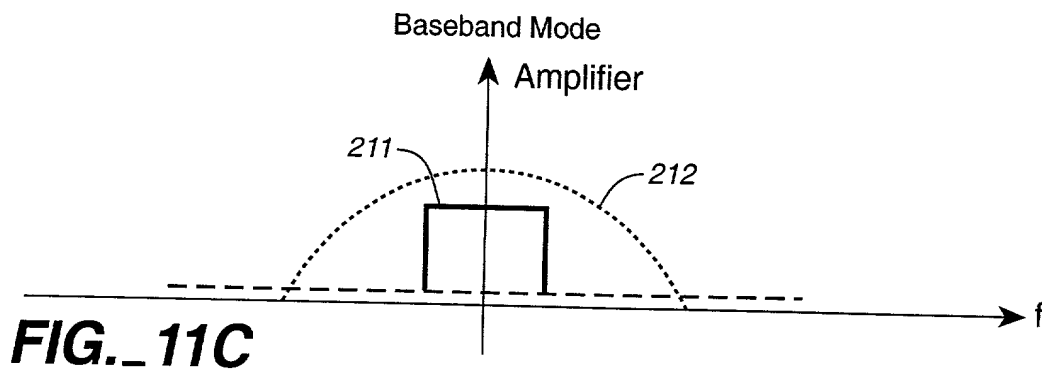
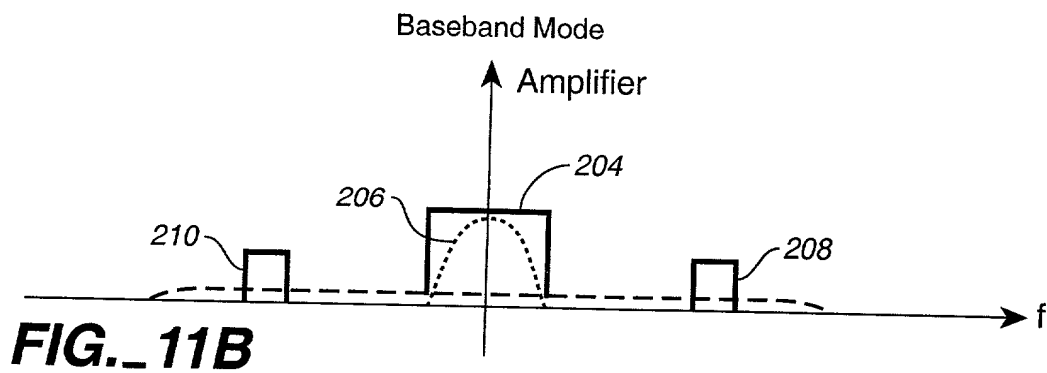
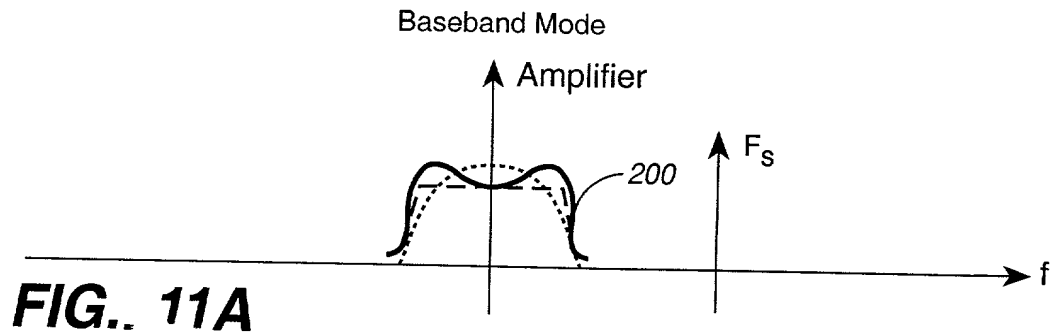


FIG. 10

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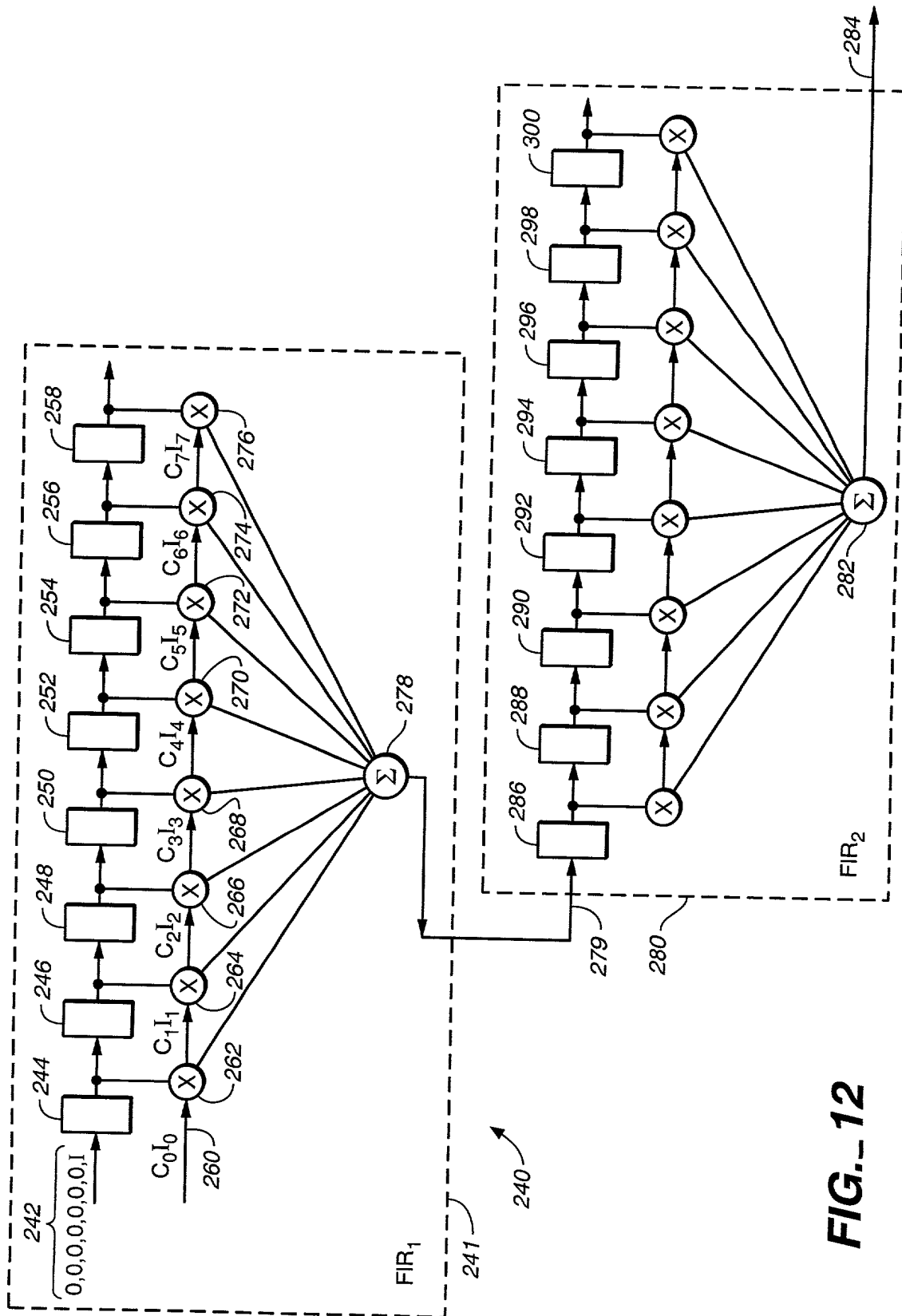
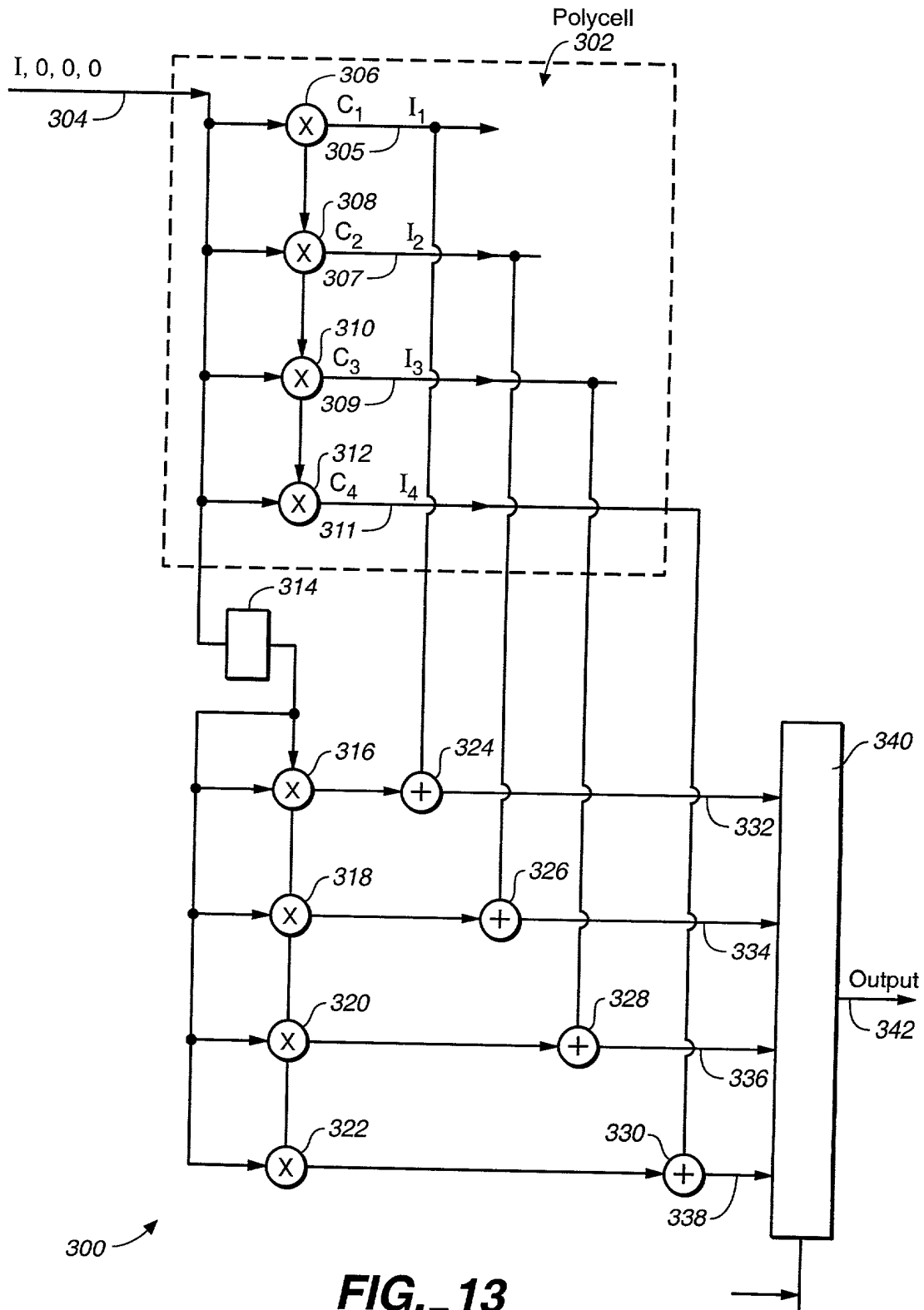
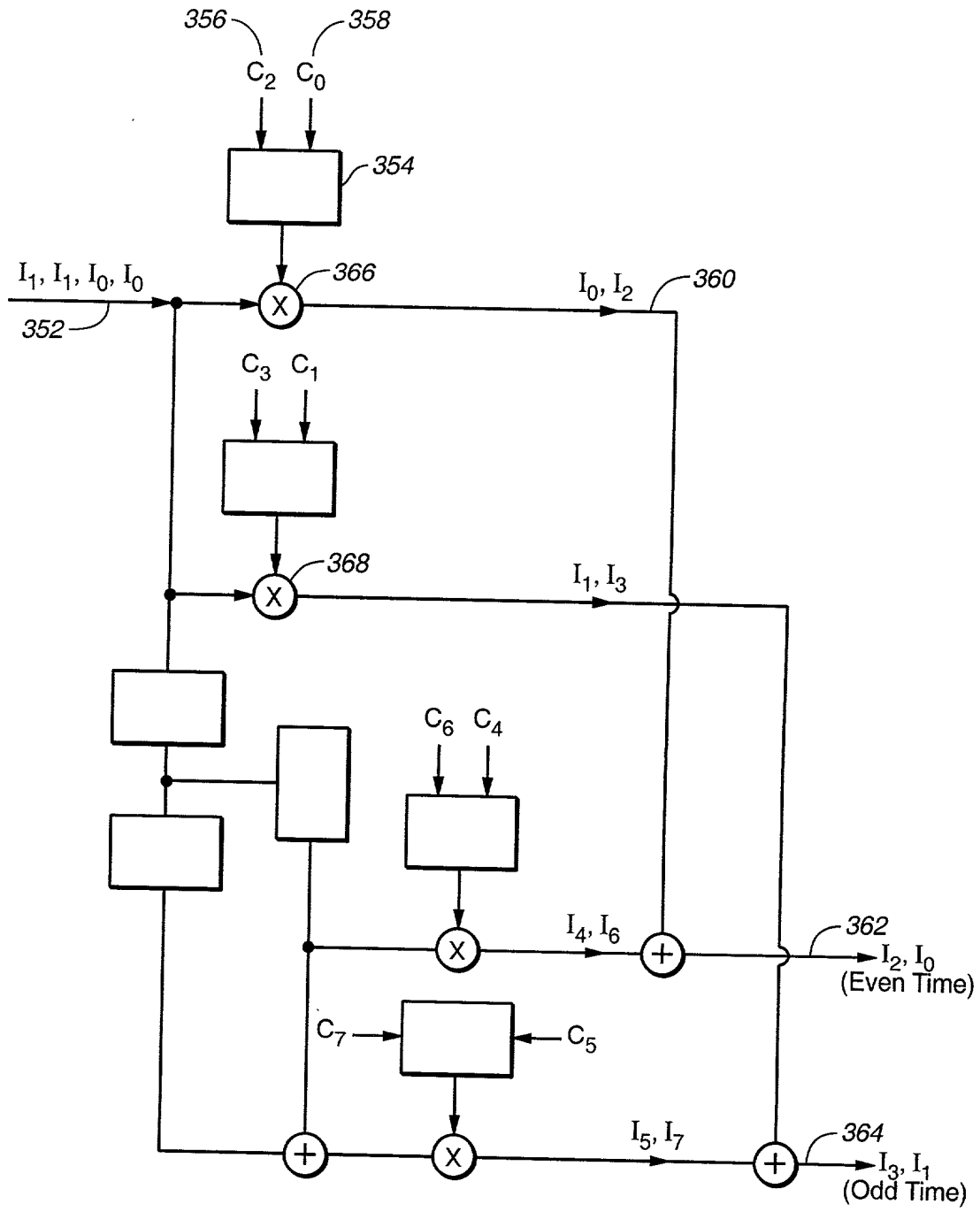


FIG. 12

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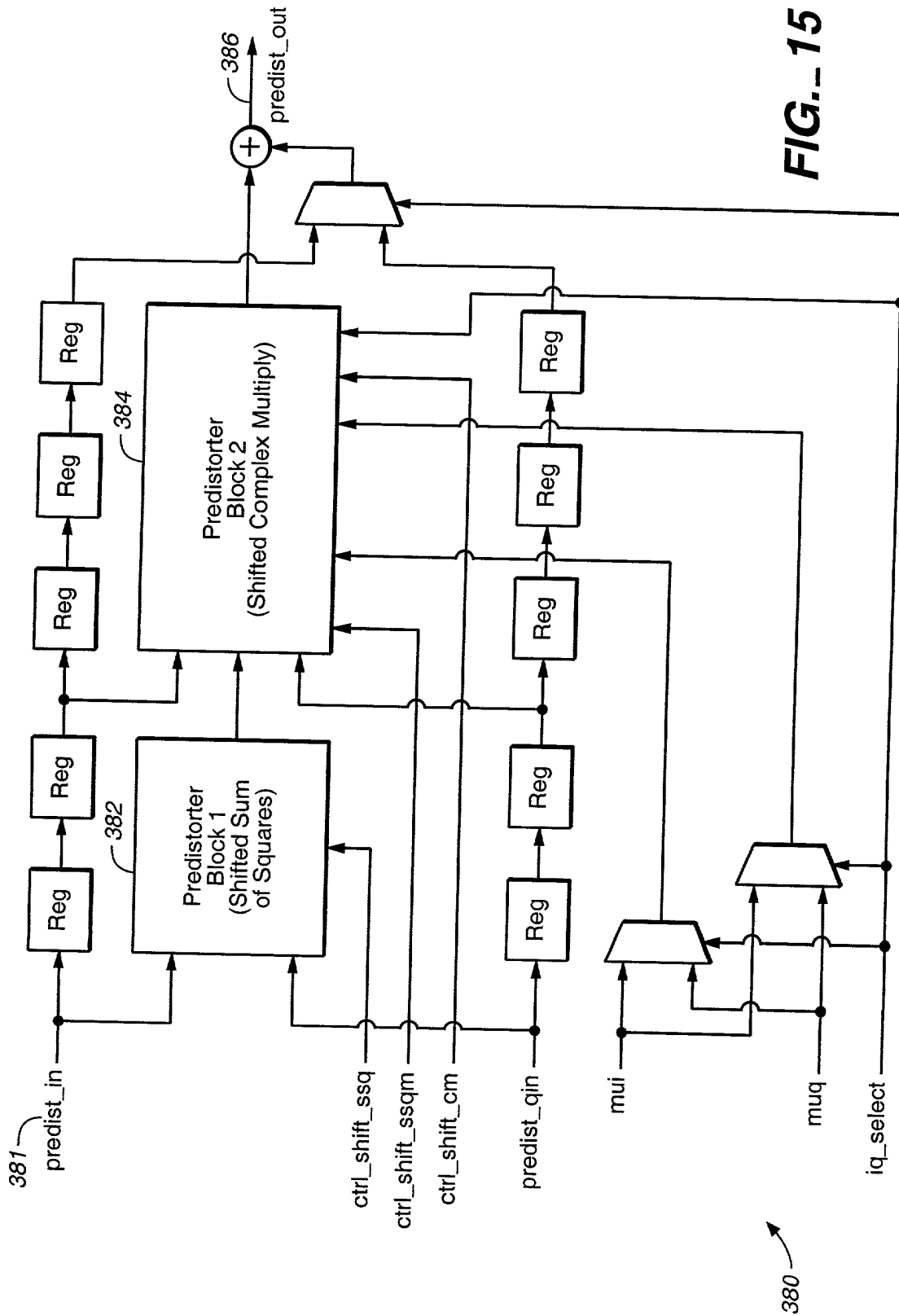


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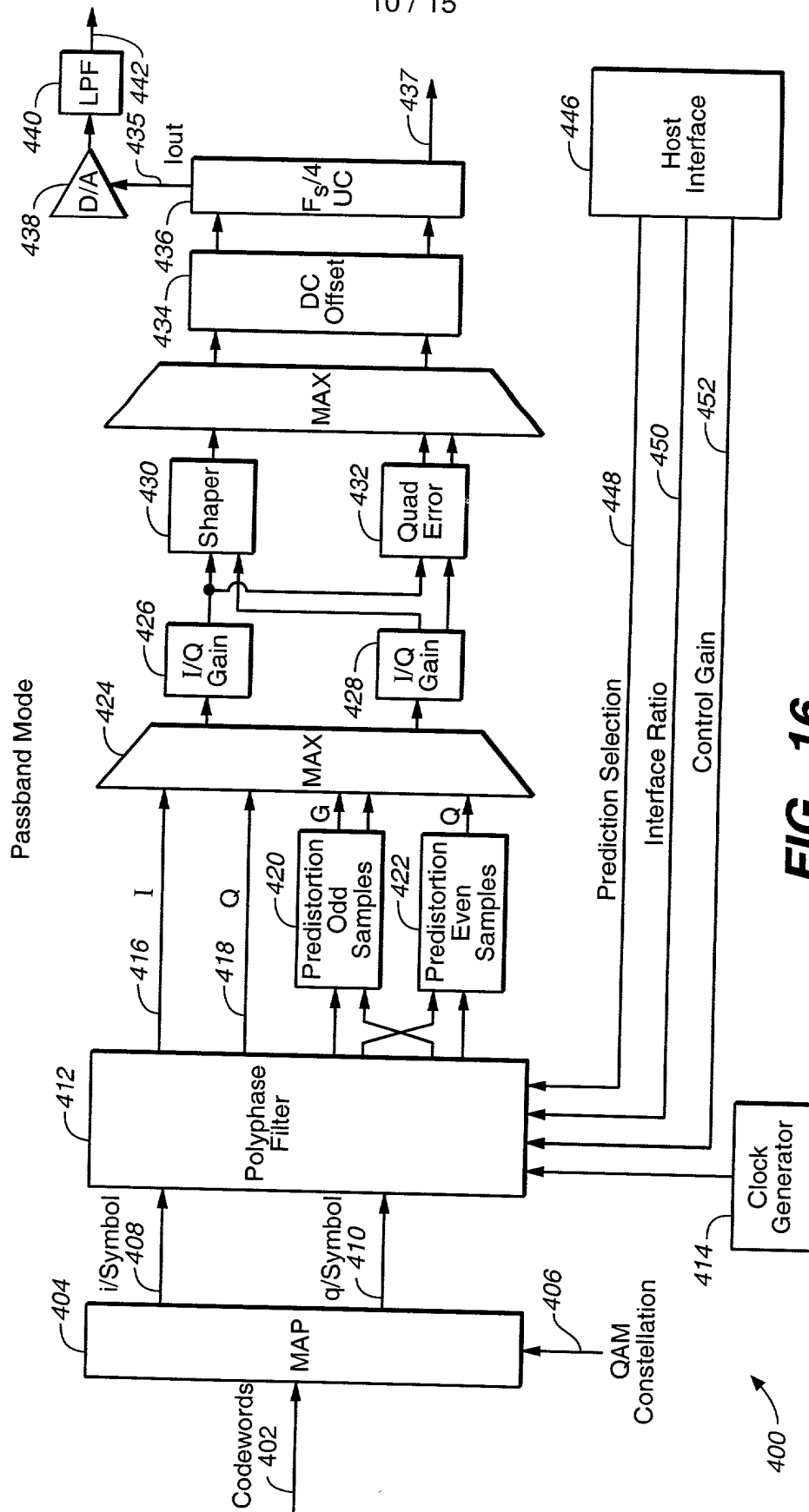


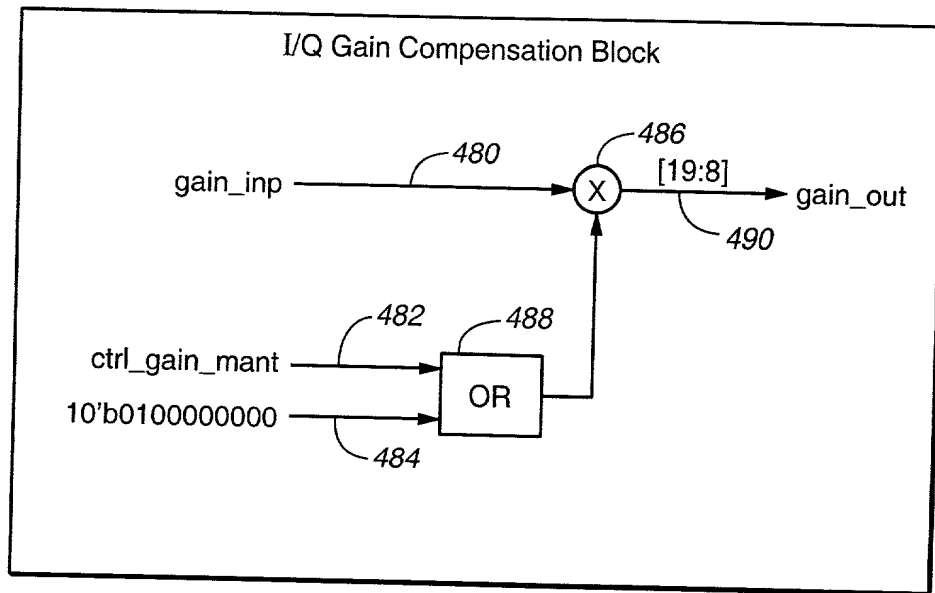
350

FIG. 14

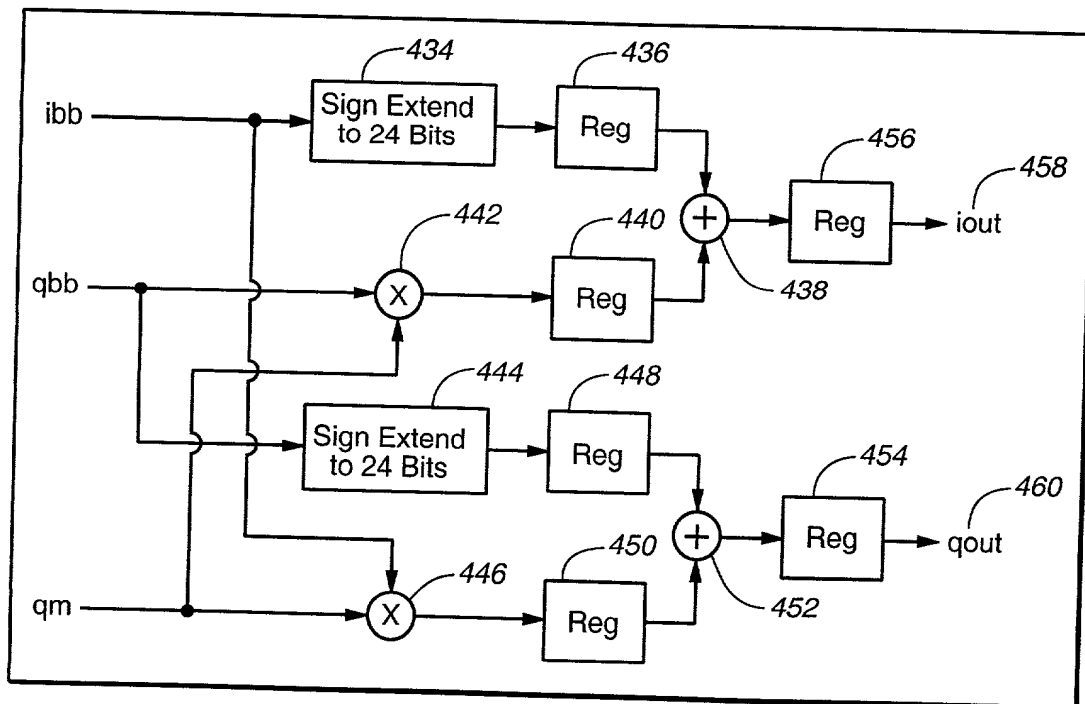


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**FIG. 16**



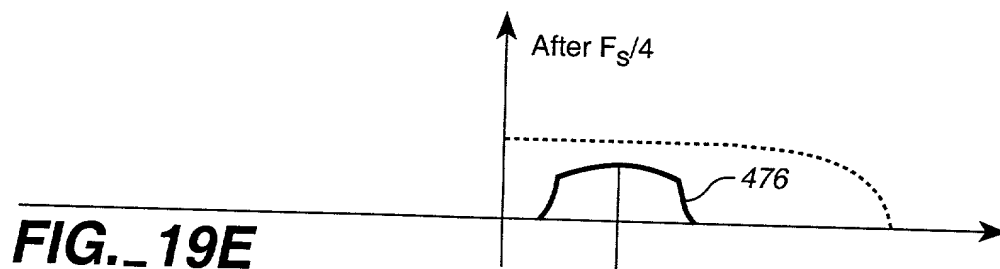
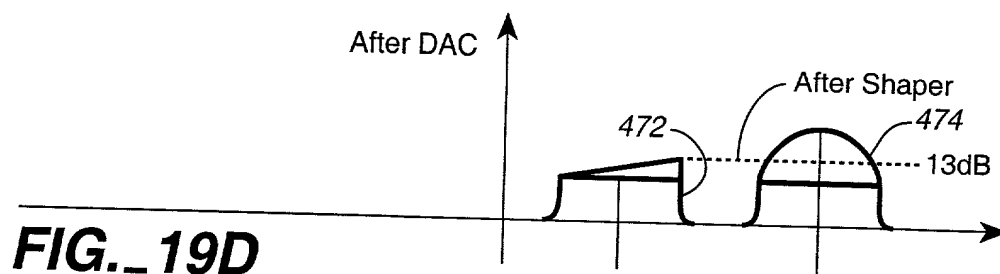
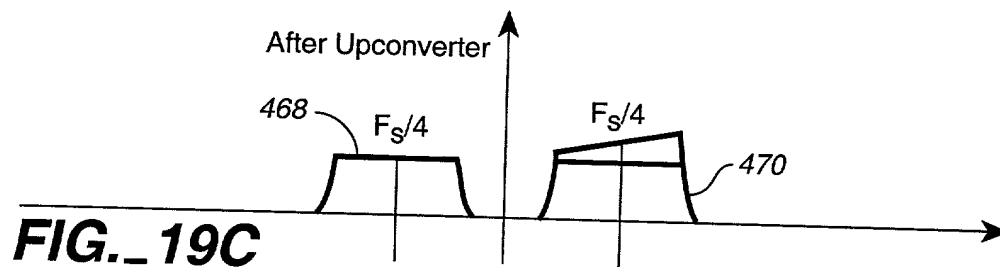
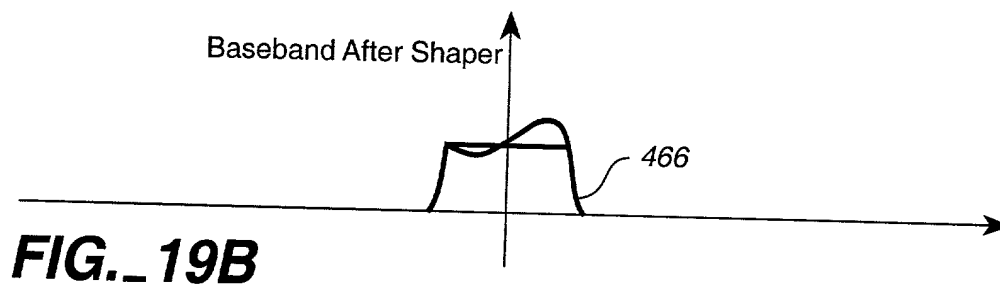
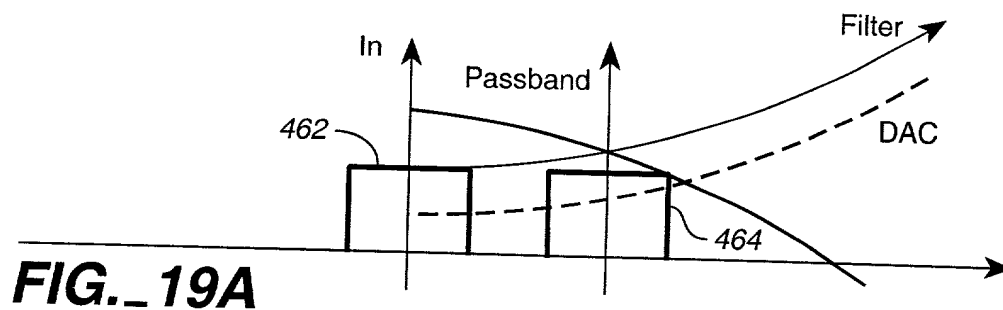
426

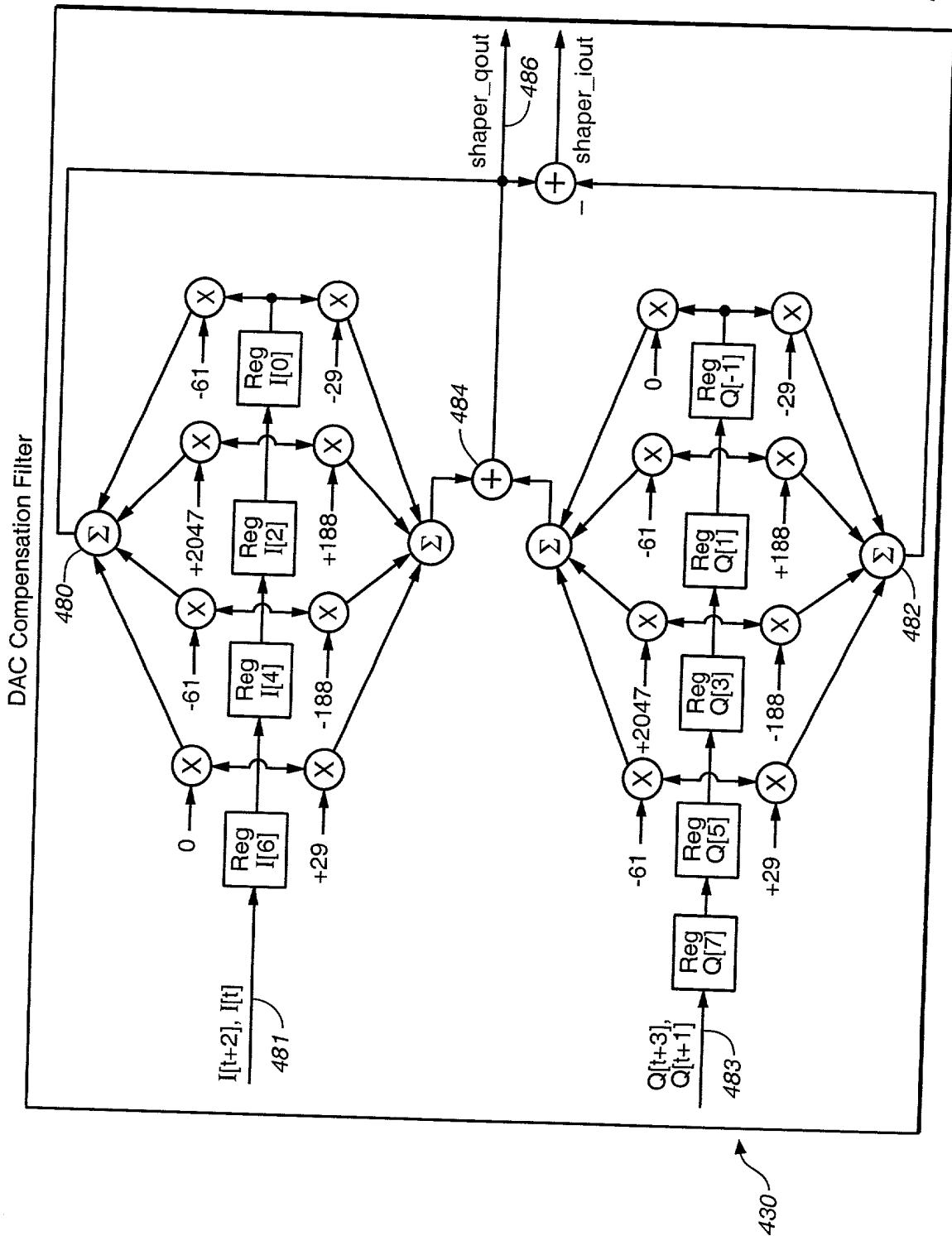
FIG. 17

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FIG. 18

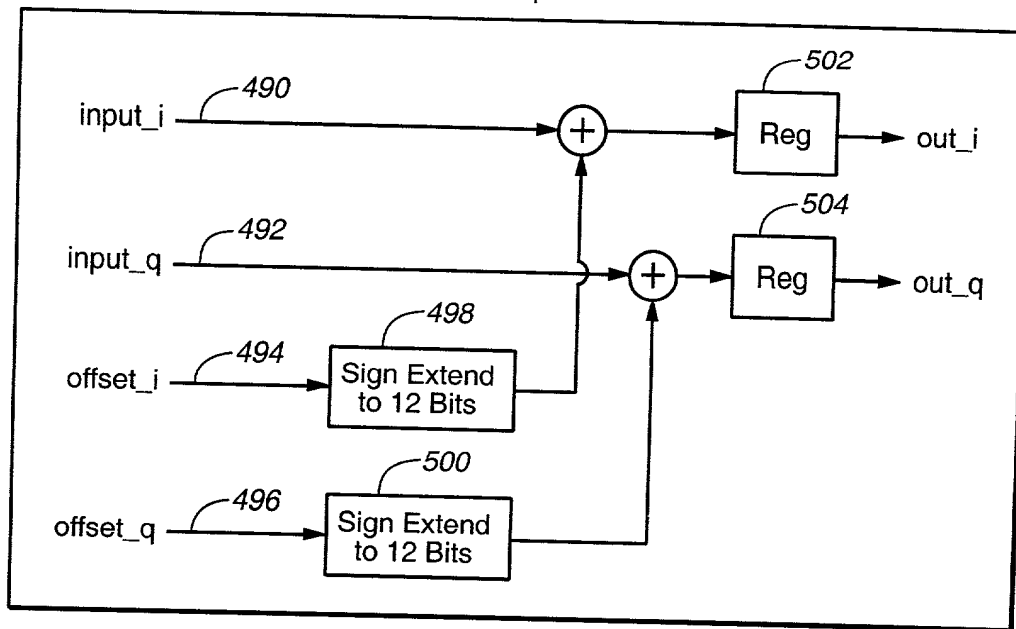
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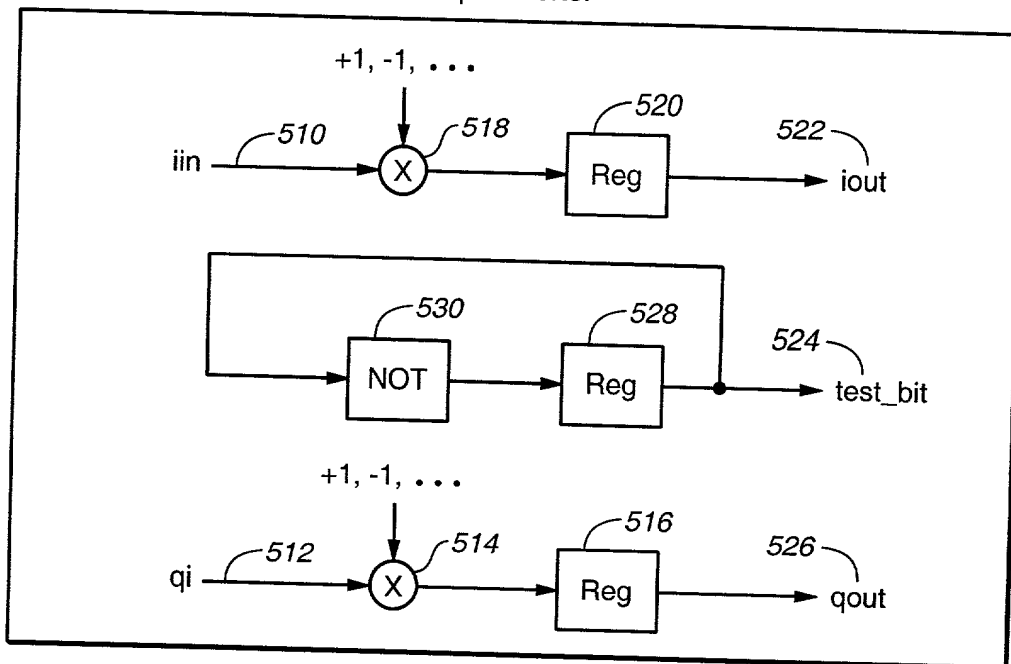
DC Offset Compensation



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FIG. 21

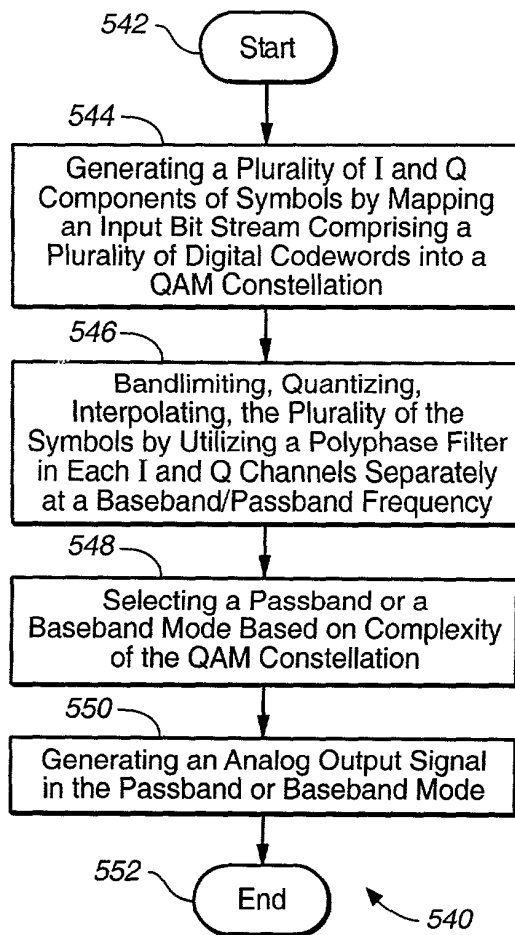
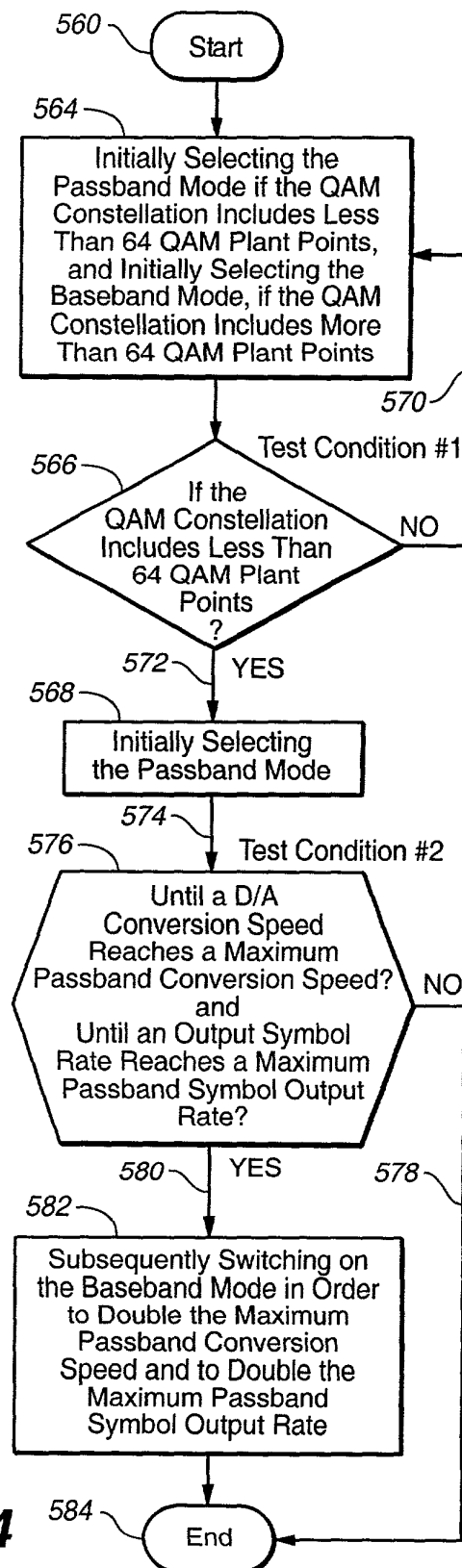
Fs/4 Upconverter



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FIG. 22

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**FIG. 23****FIG. 24**